WHAT IS CLAIMED IS:

1. A system for dynamically adjusting sectorization of a multiple sectored cell in a cell-based communication system comprising:

a signal monitor disposed in a signal path of said communication system for monitoring signal attributes of a signal transmitted to each of said multiple sectors;

a signal processor for processing said monitored signal attributes into a load metric for each of said multiple sectors; and

a sector forming unit for selectively adjusting sector dimensions of one or more of said multiple sectors responsive to a comparison of said load metric for each of said multiple sectors.

2. The system of claim 1 wherein said signal monitor comprises a code division multiple access (CDMA) decoder.

3. The system of claim 1 wherein said monitored signals comprise a pilot signal and wherein said signal attributes comprise:

a pilot channel power; and

a pilot-to-interference ratio.

4. The system of claim 3 wherein said signal attributes further comprise:

a paging channel power;

a synch channel power; and

a traffic channel power.

5. The system of claim 4 wherein said signal attributes further comprise thermal noise.

6. The system of claim 4 wherein said load metric comprises a relationship between said pilot channel power, said paging channel power, said synch channel power, and said pilot-to-interference ratio.

7. The system of claim 5 wherein said relationship is determined according to the formula:

$$\mathbf{P}_{traffic} = \frac{P_{pilot}}{Ec / Io} - (P_{pilot} + P_{paging} + P_{sync})$$

wherein Ec/Io represents the pilot-to-interference ratio.

8. The system of claim 6 wherein said load metric is normalized to a preset maximum power rating for each of said multiple sectors.

9. The system of claim 8 wherein said normalization is calculated according to the formula:

$$L = \frac{\mathbf{P}_{traffic}}{P_{Max}}$$

wherein L represents said normalized load metric.

10. The system of claim 1 wherein said sector forming unit comprises:

a beam width controller; and

an azimuth controller.

11. The system of claim 10 further comprising a signal power controller.

12. The system of claim 1 wherein said signal monitor is disposed in each of said transmission signal paths of said system corresponding to each of said multiple sectors.

13. The system of claim 12 wherein each sector's load metric is determined simultaneously.

14. The system of claim 1 further comprising:

a switch in communication with said signal monitor and with each signal path of said multiple sectors, said switch for alternately switching signals disposed on each of said signal paths into said signal monitor.

15. The system of claim 14 wherein said signal monitor serially determines said load metric for each of said multiple sectors.

16. The system of claim 1 wherein said load metric comprises an average of measurements taken during a predetermined time period.

17. The system of claim 16 wherein said average is calculated according to the formula:

$$\hat{L}_i[n] = (1-\alpha)L_i[n] + \alpha\hat{L}_i[n-1]$$

wherein $\hat{L}_i[n]$ represents a current average value, $\hat{L}_i[n-1]$ represents a previous average value, and α represents a filter parameter.

18. A method for dynamically adjusting sectorization of a multiple sectored cell in a cellular communication system comprising the steps of:

measuring signal properties along a sector transmission path for each of said multiple sectors of said multiple sector communication system;

calculating a load indicator for each of said multiple sectors using said measured signal properties;

comparing said calculated load indicators for each of said multiple sectors to determine comparative load between said multiple sectors; and

gradually adjusting the dimensions of said multiple sectors responsive to said determined comparative load.

19. The method of claim 18 wherein said measuring step comprises the steps of:

measuring a power of a pilot channel; and

measuring a pilot-to-interference ratio.

20. The method of claim 19 wherein said measuring step further comprises the steps of:

measuring a power of a paging channel; and

measuring a power of a synch channel.

21. The method of claim 20 wherein said calculating step comprises the step of solving for a power of a traffic channel using a relationship between said measured pilot channel power, said measured paging channel power, said measured synch channel power; and said measured pilot-to-interference ratio.

22. The method of claim 21 wherein said relationship comprises the formula:

$$\mathbf{P}_{traffic} = \frac{P_{pilot}}{Ec / Io} - (P_{pilot} + P_{paging} + P_{sync})$$

wherein Ec/Io represents the pilot-to-interference ratio.

23. The method of claim 21 wherein said calculating step further comprises normalizing said solved traffic channel power to a predetermined maximum power rating for each of said multiple sectors.

24. The method of claim 23 wherein said normalization is calculated according to the formula:

$$L = \frac{\mathbf{P}_{traffic}}{P_{Max}}$$

wherein L represents said normalized traffic channel power.

25. The method of claim 18 wherein said gradually adjusting step comprises the step of gradually adjusting one or more of a beam width and an azimuth angle.

26. The method of claim 25 wherein said gradually adjusting step further comprises the step of adjusting a transmission signal power.

27. The method of claim 18 wherein said calculating said load indicator step comprises the step of:

simultaneously calculating said load indicator for each of said multiple sectors.

28. The method of claim 18 wherein said measuring signal properties step further comprises the step of alternately switching between said signal transmission path of each of said multiple sectors; and

wherein said calculating said load indicator step comprises the step of:

serially calculating said load indicator for each of said multiple sectors.

29. The method of claim 18 wherein said calculated load indicator comprises an average of said signal properties measured during a predetermined time period.

30. The system of claim 29 wherein said average is calculated according to the formula:

$$\hat{L}_i[n] = (1-\alpha)L_i[n] + \alpha\hat{L}_i[n-1]$$

wherein $\hat{L}_i[n]$ represents a current average value, $\hat{L}_i[n-1]$ represents a previous average value, and α represents a filter parameter.

31. A method for dynamically redistributing sector traffic in a multiple sector, wireless communication cell comprising the steps of:

determining an amount of traffic for each of said multiple sectors in said cell;

comparing said determined amounts of traffic for each of said multiple sectors;

redistributing said sector traffic responsive to results of said comparing step.

32. The method of claim 31 wherein said determining step comprises the steps of:

measuring signal attributes of a pilot signal transmitted from a transceiver of said wireless communication cell; and

calculating a traffic load indicator using said measured signal attributes.

33. The method of claim 31 wherein said comparing step comprises the steps of:

determining a maximum loaded sector using said determined amounts of traffic;

determining a minimum loaded sector using said determined amounts of traffic; and

comparing a difference between said maximum and said minimum loaded sector with a predefined traffic differential limit.

34. The method of claim 31 wherein said redistributing step comprises the steps of:

receiving a signal indicating said difference between said maximum and said minimum loaded sector exceeds said predefined traffic differential limit;

adjusting a coverage area of at least one sector in said multiple sectors.

35. The method of claim 34 wherein said adjusting said coverage area step comprises the step of:

adjusting a beam width and an azimuth of an antenna transmission from said cell.

36. The method of claim 35 further comprising the step of:

adjusting a power of said antenna transmission from said cell.

37. A system for dynamically adjusting sectorization of a multiple sectored cell in a cell-based communication system comprising:

a signal monitor disposed in a signal path of said communication system for monitoring signal attributes of signals received in association with each of said multiple sectors;

a signal processor for processing said monitored signal attributes into a load metric for each of said multiple sectors; and

a sector forming unit for selectively adjusting sector dimensions of one or more of said multiple sectors responsive to a comparison of said load metric for each of said multiple sectors.

38. The system of claim 37 wherein said signal monitor comprises a scan receiver.

39. The system of claim 38 wherein said signal attributes comprise a receive signal strength indicator.

40. The system of claim 39 wherein said multiple sectors are formed using multiple narrow antenna beams, and wherein said monitored signal attributes of signals received in association with each said multiple sectors include a receive signal strength indicator for each narrow antenna beam associated with each particular sector of said multiple sectors.

41. The system of claim 37 wherein said sector forming unit comprises:

a beam width controller; and

an azimuth controller.

42. The system of claim 41 further comprising a signal power controller.

43. The system of claim37 wherein said signal monitor is disposed in each receive signal paths of said system corresponding to each of said multiple sectors.

44. The system of claim 43 wherein each sector's load metric is determined simultaneously.

45. The system of claim 37 further comprising:

a switch in communication with said signal monitor and with each signal path of said multiple sectors, said switch for alternately switching signals disposed on each of said signal paths into said signal monitor.

46. The system of claim 45 wherein said signal monitor serially determines said load metric for each of said multiple sectors.

47. The system of claim 37 wherein said load metric comprises an average of measurements taken during a predetermined time period.